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PROGRAM TITLE

Decontamination and Disposition of Facilities

DOCUMENT TITLE

Radiological Survey Results — Release to Unrestricted Use, SRE Region X

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J. H. Wallace — 779 — T034

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R. J. Tuttle — 1/27/83
B. F. Ureda — 5/4/83
C. C. Conners — 5/5/83
J. M. Marzec
W. R. McCurnin — 5/17/83 for WRMcC
M. E. Remley — 18 May 83

DISTRIBUTION

*	NAME	MAIL ADDR
*	C. C. Conners	NB02
*	J. M. Harris	T055
*	J. M. Marzec	T143
*	W. R. McCurnin	T020
*	M. E. Remley	NB13
*	R. J. Tuttle	NB13
*	B. F. Ureda	NB02
*	J. H. Wallace	T034

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ABSTRACT

The results of the radiological survey for Region X of the SRE facility are described. All survey results are below the applicable limits, indicating that this area may be released for unrestricted use.

RESERVED FOR PROPRIETARY/LEGAL NOTICES

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TABLES

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1.0 INTRODUCTION

This document covers Region X of the SRE faicility (Figure 1). This area is now in use as a parking lot and/or storage area and includes the natural ground to the east of Building 143.

Radiological surveys were performed in conformance with N704TP990008, "Radiological Survey Plan Support of D/D Operations at T-143 (SRE)", R. K. Owens.

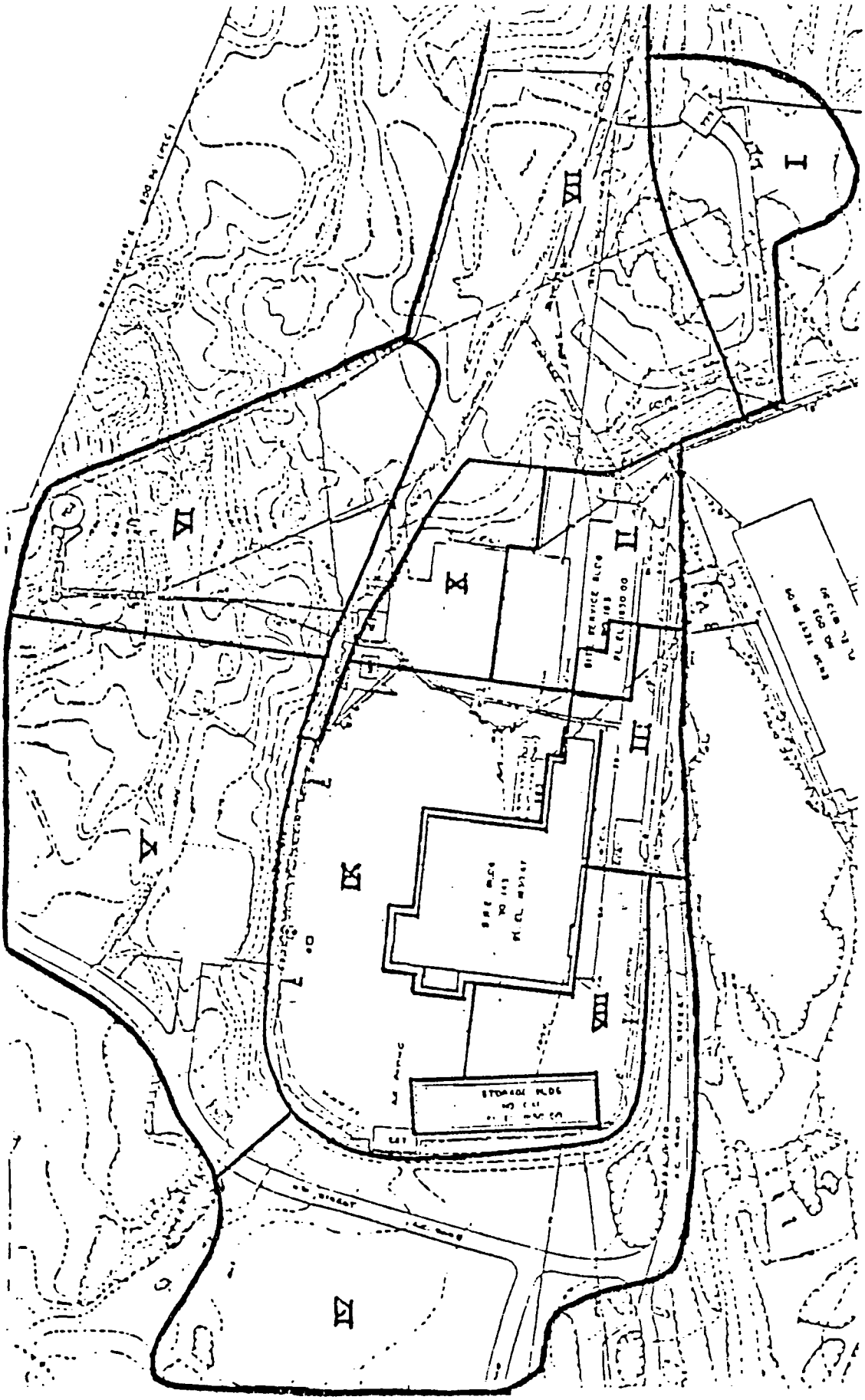

FIGURE 1
SRE FACILITY

The contamination/radiation limits for unrestricted use that were applied in decontaminating this area are shown in Table 1 and the requirements for survey measurements in each region are shown in Table 2.

TABLE 1
RESIDUAL RADIOACTIVITY LIMITS
FOR RELEASE FOR UNRESTRICTED USE

	Total	Removal
Surfaces		
Alpha	100 dpm/100 cm^2	20 dpm/100 cm^2
Beta	0.1 mrad/hr at 1 cm through 7 mg/cm^2 absorber	100 dpm/100 cm^2
Soil	100 pCi/g gross detectable beta	

TABLE 2

SURVEY MEASUREMENT REQUIREMENTS

Region	Removable Contamination	Surface Radiation	Soil Samples	Concrete Samples	Water Samples
I	X	X	X	X	X
II	X	X	X		
III		X			
IV	X	X	X		
V		X	X	X	
VI		X	X		
VII		X	X		X
VIII		X			
IX	X	X	X		
X	X	X	X		
041	X	X			
163	X	X			
143 Offices	X	X			
143 High Bay	X	X	X	X	X

Measurements of removable contamination are omitted from those areas that consist solely of soil or asphalt-paved surfaces.

2.0 SURVEYS AND RESULTS

A. REMOVABLE CONTAMINATION

Smear surveys for this region were not applicable and were replaced by soil sampling.

B. SURFACE RADIATION

For this part of the survey, a Ludlum Model 12S Micro-R meter was used. An average reading of 10 μR/h was recorded for this region. No readings differed significantly from background.

C. SOIL SAMPLES

Twenty-five soil samples were processed for this region, all below 30 pCi/g gross detectable beta. All soil samples were counted on a Nuclear Measurements Corporation automatic counting system with a KCl standard with an efficiency factor of 3.2 and a background of 25.6 cpm.

The maximum soil activity found was 28 pCi/g with an average of 25 pCi/g.

3.0 CONCLUSIONS

In each type of test performed, all samples indicated levels less than those limits prescribed by the Decontamination and Disposition of Facilities Program for release for unrestricted use.

All appropriate surveys indicate that current existing radioactivity in the area is below the applicable limits for release for unrestricted use.